CLAIM AMENDMENTS

29. (Currently Amended) A rechargeable electrochemical cell which is subjected to multiple charging cycles and discharging cycles, each charging cycle having a charging portion corresponding to a gassing charge where a gas is generated in the rechargeable electrochemical cell and a charging portion below the gassing charge, the rechargeable electrochemical cell comprising;

opposed positive and negative electrodes;

an aqueous electrolyte in ionic contact with the electrodes for supporting current flow therebetween; and,

~~charge dependant~~ deactivatable impeding means, disposed in the electrolyte and having a constituent thereof bonded to the negative electrodes, for forming a barrier for impeding the gassing charge, the ~~charge dependant~~ deactivatable impeding means activated by the charging portion corresponding to the gassing charge and being deactivated by the charging portion below the gassing charge such that when activated, the ~~charge dependant~~ deactivatable impeding means impedes the gassing charge to limit gas generation in the rechargeable electrochemical cell, and when deactivated, the ~~charge dependant~~ deactivatable impeding means has substantially no charge limiting effect, the ~~charge dependant~~ deactivatable impeding means being deactivated and having substantially no effect during the discharge cycle.

30. (Currently Amended) The rechargeable electrochemical cell according to claim 29, wherein the ~~charge dependant~~ deactivatable impeding means is a quaternary ammonium compound selected from the group consisting of alkyl dimethyl benzyl ammonium chloride, didecyldimethyl ammonium chloride, didecylmethyloxyethyl ammonium propionate, pyridine and quinoline.

31. (Currently Amended) The rechargeable electrochemical cell according to claim 29, wherein the ~~charge dependant~~ deactivatable impeding means is a non-ionic compound selected from the group consisting of primary, secondary, tertiary, aliphatic and cycloaliphatic amines.

32. (Currently Amended) The rechargeable electrochemical cell according to claim 29, wherein the ~~charge dependant~~ deactivatable impeding means is sodium dioctyl sulpho succinate.

33. (Currently Amended) The rechargeable electrochemical cell according to claim 29, wherein the ~~charge dependant~~ deactivatable impeding means is an alkyl dimethyl benzyl ammonium chloride, the alkyl containing from 12 to 16 carbon atoms.

34. (Previously Presented) The rechargeable electrochemical cell according to claim 33, wherein the alkyl dimethyl benzyl ammonium chloride is present in the aqueous electrolyte at from about 5 mg/l to about 1500 mg/l.

35. (Previously Presented) The rechargeable electrochemical cell according to claim 33, wherein the alkyl dimethyl benzyl ammonium chloride is present in the aqueous electrolyte at from about 5 mg/l to about 75 mg/l.

36. (Currently Amended) The rechargeable electrochemical cell according to claim 29 wherein the ~~charge dependant~~ deactivatable impeding means is soluble in the aqueous electrolyte.

37. (Cancelled)

38. (Cancelled

39. (Previously Presented) The rechargeable electrochemical cell of claim 29 wherein the rechargeable electrochemical cell is a lead-acid battery.

40. (Cancelled)

41. (Currently Amended) The rechargeable electrochemical cell of claim 29 wherein the ~~charge dependant~~ deactivatable impeding means contains elements from the fifth or sixth periodic groups.

42. (Currently Amended) A method for reducing water loss due to electrolysis of an aqueous acid electrolyte in a rechargeable electrochemical cell which is subjected to multiple charging cycles and discharging cycles, each charging cycle having a charging portion corresponding to a gassing charge where hydrogen gas is generated by electrolysis of the aqueous electrolyte and a charging portion below the gassing charge, the rechargeable electrochemical cell having opposed positive and negative electrodes, the aqueous electrolyte in ionic contact with the positive and negative electrodes for supporting current flow therebetween, the method comprising:

providing ~~charge dependant~~ deactivatable impeding means disposed in the aqueous electrolyte, and bonding a constituent of the charge dependant impeding means to the negative electrodes, for forming a barrier to impede the gassing charge, the ~~charge dependant~~ deactivatable impeding means being activated by the charging portion corresponding to the gassing charge and being deactivated by the charging cycle portion below the gassing charge, the ~~charge dependant~~ deactivatable impeding means being deactivated and having substantially no effect during the discharge cycle; and,

applying a charging cycle to the rechargeable electrochemical cell, activating the ~~charge dependant~~ deactivatable impeding means when a gassing charge is attained, impeding the gassing charge to reduce water loss due to electrolysis.

43. (Currently Amended) A rechargeable electrochemical cell which is subjected to multiple charging cycles and discharging cycles, each charging cycle having a charging portion

corresponding to a gassing charge where a gas is generated and a charging portion below the gassing charge, the rechargeable electrochemical cell comprising opposed positive and negative electrodes, an aqueous electrolyte in ionic contact with the electrodes for supporting current flow therebetween, and ~~charge dependant~~ deactivatable impeding means disposed in the electrolyte and having a constituent thereof attached to the negative electrodes for impeding the gassing charge, the ~~charge dependant current~~ deactivatable impeding means being activated by the charging portion corresponding to the gassing charge to impede the gassing charge to reduce gas generation at the negative electrodes, and being deactivated at a charging cycle below the gassing charge to have substantially no charge limiting effect, the ~~charge dependant~~ deactivatable impeding means when activated forming a barrier over a surface of the negative electrodes to impede ions attracted to the negative electrodes.

44. (Previously Presented) The rechargeable electrochemical cell according to claim 43, wherein the barrier further contains gas bubbles evolved from the negative electrode.

45. (Currently Amended) The rechargeable electrochemical cell according to claim 43 wherein the ~~charge dependant~~ deactivatable impeding means have head portions attached to the negative electrode surfaces and tail portions extending into the electrolyte away from the head portions.

46. (Previously Presented) The rechargeable electrochemical cell according to claim 43, wherein the rechargeable electrochemical cell is a secondary battery cell.

47. (Cancelled)

48. (Previously Presented) The electrochemical cell according to claim 44, wherein a quantity of gas bubbles contained in the barrier correlates with a strength of impediment to ions attracted to the negative electrode.

49. (Previously Presented) The rechargeable electrochemical cell according to claim 43 wherein the barrier impedes ions selected from the group consisting of lead, antimony, arsenic, tin, iron, zinc, chromium, copper and silver ions.

50. (Currently Amended) The rechargeable electrochemical cell of claim 43 wherein the ~~charge dependant~~ deactivatable impeding means contains elements from the fifth or sixth periodic groups.

51. (Currently Amended) A rechargeable electrochemical cell which is subjected to multiple charging cycles and discharging cycles, each charging cycle having a charging portion corresponding to a gassing charge where a gas is generated in the rechargeable electrochemical cell and a charging portion below the gassing charge, the rechargeable electrochemical cell comprising;

opposed positive and negative electrodes, a substantially constant current applied thereto by the charging cycle;

an aqueous electrolyte in ionic contact with the electrodes for supporting current flow therebetween; and,

~~charge dependant~~ deactivatable impeding means, disposed in the electrolyte and having a constituent thereof bonded to the negative electrodes, for forming a barrier for impeding the gassing charge, the ~~charge dependant~~ deactivatable impeding means activated by the charging portion corresponding to the gassing charge and being deactivated by the charging portion below the gassing charge such that when activated, the ~~charge dependant~~ deactivatable impeding means impedes the gassing charge to limit gas generation in the rechargeable electrochemical cell and raises a voltage across the positive and negative electrodes, and when deactivated, the ~~charge dependant~~ deactivatable impeding means has substantially no charge limiting effect, the ~~charge~~

~~dependant~~ deactivatable impeding means being deactivated and having substantially no effect during the discharge cycle.

52. (Currently Amended) A rechargeable electrochemical cell which is subjected to multiple charging cycles and discharging cycles, each charging cycle having a charging portion corresponding to a gassing charge where a gas is generated in the rechargeable electrochemical cell and a charging portion below the gassing charge, the rechargeable electrochemical cell comprising;

opposed positive and negative electrodes, a substantially constant voltage applied thereto by the charging cycle;

an aqueous electrolyte in ionic contact with the electrodes for supporting current flow therebetween; and,

~~charge dependant~~ deactivatable impeding means having a constituent thereof bonded to the negative electrodes, for forming a barrier for impeding the gassing charge, the ~~charge dependant~~ deactivatable impeding means activated by the charging portion corresponding to the gassing charge and being deactivated by the charging portion below the gassing charge such that when activated, the ~~charge dependant~~ deactivatable impeding means impedes the gassing charge to limit gas generation in the rechargeable electrochemical cell and reduces a current between the positive and negative electrodes, and when deactivated, the ~~charge dependant~~ deactivatable impeding means has substantially no charge limiting effect, the ~~charge dependant~~ deactivatable impeding means being deactivated and having substantially no effect during the discharge cycle.